



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,834	01/11/2002	Stephen M. Dye	45739/55,813	8073
21874	7590	12/29/2003	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 9169 BOSTON, MA 02209			GARY, ERIKA A	
			ART UNIT	PAPER NUMBER
			2681	8

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/044,834	DYE, STEPHEN M.
Examiner	Art Unit	
Erika A. Gary	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 January 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-29 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-29 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) Interview Summary (PTO-413) Paper No(s) _____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes et al., US Patent Number 6,134,432 (hereinafter Holmes) in view of Knotts, US Patent Number 6,658,260 (hereinafter Knotts) further in view of Drory et al., US Patent Application Publication Number 2002/0049817 (hereinafter Drory).

Regarding claim 1, Holmes discloses a system for providing one or more personal communication system carriers, operating using one or more air interface protocols carriers, with a plurality of wireless applications from one or more wireless application operators, the system comprising: a network, having a plurality of system interconnections; and a mobile virtual network operator platform; wherein the mobile virtual network platform comprises: one or more short message service centers; a short message service center interface that enables the network operator platform to communicate with the one or more personal communication system carriers through the one or more short message service centers using one or more air interface access techniques; and an application aggregation device that enables the network operator platform to communicate with said one or more wireless application operators, further

enabling the network operator platform to provide one or more wireless applications to a plurality of remote user units through one or more personal communications system carriers [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator provides a plurality of wireless applications. However, Knotts teaches an inter-carrier short messaging service wherein a short message service center interface enables communication between one or more personal communication system carriers using multiple air interface protocols [fig. 2; col. 1: lines 13-18, 43-47]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Knotts, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Knotts and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Knotts discusses the need for interoperability across different types of networks [col. 4: lines 6-17].

Regarding claim 2, Holmes discloses the network comprises one or more personal communication networks [col. 2: lines 38-46].

Regarding claim 3, Holmes discloses the network further comprises a plurality of devices selected from the group consisting of remote wireless units, telematic units, and telemetry units [fig. 3; col. 3: lines 11-14].

Regarding claim 4, Holmes discloses the one or more air interface standards comprises a standard from the group consisting of global standards for mobile communications (GSM), time division multiplexing access (TDMA), frequency division multiplexing access (FDMA), code division multiplexing access (CDMA), and integrated digital enhanced network (iDEN) [col. 2: lines 38-46].

Regarding claim 5, Holmes discloses the network can communicate with a network selected from the group consisting of a Personal Communication System (PCS) network, a Cellular network, a Special Mobile Radio (SMR) network, and an iDen wireless network [col. 1: line 66 – col. 2: line 3].

Regarding claim 6, Holmes discloses the mobile virtual operator network platform can communicate with one or more users of at least one network selected from the group consisting of a Personal Communication System (PCS) network, a Cellular network, a Special Mobile Radio (SMR) network, and an iDen wireless network [col. 1: line 66 – col. 2: line 3].

Regarding claim 7, Holmes discloses the system further comprises a short messaging service center that communicates with a least one of the wireless application operators and a least one personal communication system (PCS) carrier via a short message service center interface [col. 1: line 66 – col. 2: line 3].

Regarding claim 8, Holmes discloses the short message service center can communicate with multiple wireless application operator operating on at least one of similar and dissimilar wireless networks [col. 2: lines 48-52].

Regarding claim 9, Holmes discloses the short message service center communicates with the at least one PCS carrier via the mobile virtual network operator platform [col. 1: line 66 – col. 2: line 3; col. 2: lines 48-52].

Regarding claim 10, Holmes discloses the mobile virtual network operator platform communicates with one or more databases [fig. 3].

Regarding claim 11, it is inherent for the system to further comprise a public switched telephone network that is in communication with the network.

Regarding claim 12, Holmes discloses a mobile virtual network operator platform for providing a plurality of wireless applications from one or more wireless application operators to one or more personal communication system carriers, the network operator platform comprising: one or more short message service centers; a short message service center interface, comprising a microprocessor and memory, that enables the network operator platform to communicate with the one or more personal communication system carriers through the one or more short message service centers using one or more air interface access techniques; and an application aggregation device, comprising a microprocessor and memory, that enables the network operator platform to communicate with said one or more wireless applications operators, further enabling the network operator platform to provide one or more wireless applications to a

plurality of remote user units through said one or more personal communications system carriers [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator provides a plurality of wireless applications. However, Knotts teaches an inter-carrier short messaging service wherein a short message service center interface enables communication between one or more personal communication system carriers using multiple air interface protocols [fig. 2; col. 1: lines 13-18, 43-47]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Knotts, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Knotts and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Knotts discusses the need for interoperability across different types of networks [col. 4: lines 6-17].

Regarding claim 13, Holmes discloses the network operator platform further comprises an Internet wireless access protocol gateway that converts and reformats a first text language to a second text language to enable communication of data information between the plurality of remote user units and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 14, Holmes discloses the network operator platform further comprises an Internet wireless application protocol gateway that converts and reformats a first binary language to a second binary language to enable communication of data information between the plurality of remote user units and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 15, Holmes discloses the plurality of remote user units is selected from the group consisting of remote wireless units, remote telematic units, and remote telemetry units [fig. 3; col. 3: lines 11-14].

Regarding claim 16, Holmes discloses the network operator platform further comprises: one or more databases, wherein said one or more databases comprises at least one of a message database and a subscriber database; a mail client function that enables remote user units to communicate with other remote units by way of electronic mail services; a message processor that reads all messages coming into said network operator platform [fig. 3]. Further regarding claim 16, Drory discloses a cross-operator router that enables transmission of at least one of voice and data messages even if transmission requires formatting said at least one of voice and data messages into a second air interface protocol [fig. 1: ref. 26].

Regarding claim 17, Holmes discloses the message processor includes a message routing function, whereby a plurality of messages is routed to the destined PCS carrier [col. 18: lines 43-47].

Regarding claim 18, Drory discloses the cross-operator router includes a cross-technology handling function, whereby a plurality of messages can be delivered to the destined PCS carrier [paragraph 0003].

Regarding claim 19, Holmes discloses the network operator platform further comprises at least one billing engine [fig. 3: ref. 302].

Regarding claim 20, Holmes discloses a method of providing a plurality of wireless applications from one or more wireless application operators to one or more personal communications system carriers, the method comprising the steps of: providing a virtual mobile network operator platform; providing a short message service center interface, comprising a microprocessor and memory, that enables said network operator platform to communicate with the one or more personal communication system carriers through one or more short message service centers using one or more air interface access techniques; and providing an application aggregation device, comprising a microprocessor and memory, that enables said network operator platform to communicate with said one or more wireless application operators, further enabling the network operator platform to provide one or more wireless applications to said one or more personal communication system carriers [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator provides a plurality of wireless applications. However, Knotts teaches an inter-carrier short messaging service wherein a short message service center interface enables

communication between one or more personal communication system carriers using multiple air interface protocols [fig. 2; col. 1: lines 13-18, 43-47]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Knotts, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Knotts and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Knotts discusses the need for interoperability across different types of networks [col. 4: lines 6-17].

Regarding claim 21, Holmes discloses the method further comprises the step of providing an Internet wireless access protocol gateway that converts and reformats a first text language to a second text language to enable communication of data information between said one or more personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 22, Holmes discloses the step of providing an Internet wireless access protocol gateway that converts and reformats a first binary language to a second binary language to enable communication of data information between said one or more personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 23, Holmes discloses providing one or more databases, wherein said one or more databases comprises at least one of a message database and a subscriber database; providing a mail client function; and providing a message routing function [fig. 3]. Drory discloses providing a cross-technology handling function [fig. 1: ref. 26].

Regarding claim 24, Holmes discloses the step of providing one or more billing engines [fig. 3: ref. 302].

Regarding claim 25, Holmes discloses a method of providing a plurality of wireless applications from one or more wireless application operators to one or more remote users of one or more personal communication systems, the method comprising the steps of: providing a virtual mobile network operator platform; providing a short message service center interface, comprising a microprocessor and memory, that enables said network operator platform to communicate with said one or more remote users of said one or more personal communication systems through one or more short message service centers using one of more air interface access techniques; and providing an application aggregation device, comprising a microprocessor and memory, that enables said network operator platform to communicate with said one or more wireless application operators, further enabling the network operator platform to provide one or more wireless applications to one or more remote users of said one or more personal communication systems [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator

provides a plurality of wireless applications. However, Knotts teaches an inter-carrier short messaging service wherein a short message service center interface enables communication between one or more personal communication system carriers using multiple air interface protocols [fig. 2; col. 1: lines 13-18, 43-47]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Knotts, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Knotts and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Knotts discusses the need for interoperability across different types of networks [col. 4: lines 6-17].

Regarding claim 26, Holmes discloses the method further comprises the step of providing an Internet wireless access protocol gateway that converts and reformats a first text language to a second text language to enable communication of data information between said one or more remote users of said one or more personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 27, Holmes discloses the step of providing an Internet wireless access protocol gateway that converts and reformats a first binary language to a second binary language to enable communication of data information between said one or more

remote users of said one or more personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 28, Holmes discloses providing one or more databases, wherein said one or more databases comprises at least one of a message database and a subscriber database; providing a mail client function; providing a message routing function [fig. 3]. Drory discloses providing a cross-technology handling function [fig. 1: ref. 26].

Regarding claim 29, Holmes discloses the step of providing one or more billing engines [fig. 3: ref. 302].

Response to Arguments

3. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miller et al., US Patent Number 6,421,707, disclose wireless multi-media messaging.

Moran et al., US Patent Application Publication Number 2002/0177448, disclose wireless data performance monitoring.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 703-308-0123. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 703-305-4040. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750 or to the 2600 Customer Service Office at 703-306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive Arlington, VA., Sixth Floor (Receptionist).

EAG
December 21, 2003


ERIKA GARY
PATENT EXAMINER